OREGON NASA Space Grant Consortium

Fact Sheet - 2006

Space Grant Program Objectives and History

In 1988, Congress established the National Space Grant College and Fellowship Program in an effort to:

- Establish a national network of universities with interest and capabilities in aeronautics, space, and related fields;
- **Develop** a strong science, technology, engineering and mathematics (STEM) education base from elementary through university levels;
- **Encourage** cooperative programs among universities, aerospace industry, and federal, state, and local governments.
- **Encourage** interdisciplinary training, research, and public service programs related to aeronautics, space sciences and technology;
- **Recruit** and train professionals, especially women and underrepresented minorities, and persons with disabilities, for careers in aerospace related fields.

In 1989 the program was implemented and managed by the National Aeronautics and Space Administration (NASA) via a national network of public and private colleges and universities, space-related industry, state and local governments and non-profit organizations. This national network encourages and strengthens science, technology, engineering, and mathematics education via consortia in all 50 states, the District of Columbia, and Puerto Rico.

Oregon NASA Space Grant Consortium (OSGC) joined the national network in March 1991. The program grant was awarded to Oregon State University (OSU) to implement a balanced program of research, education, and public outreach. OSGC was established to maintain a diverse array of programs to support space science and engineering education from elementary through graduate schools. Oregon Space Grant consists of 19 affiliate members across the state including universities, museums, and private industry that collaborate to support and supplement science and aerospace efforts.

Oregon and National Space Grant Funding History

Fiscal Year	National Program (in Millions)	Oregon Space Grant (in Millions)
FY 91 - 95	\$ 69.6 (total)	\$ 0.81 (total)
FY 96	\$ 14.6	\$ 0.17
FY 97	\$ 13.6	\$ 0.17
FY 98	\$ 19.1	\$ 0.26
FY 99	\$ 19.1	\$ 0.26
FY 00	\$ 19.1	\$ 0.26
FY 01	\$ 19.1	\$ 0.26
FY 02	\$ 24.5	\$ 0.35
FY 03	\$ 24.5	\$ 0.35
FY 04	\$ 24.5	\$ 0.35
FY 05	\$ 28.2	\$ 0.21
FY 06	\$ 32.0	\$ 0.34
Total	\$307.9	\$ 3.79

Matching funds (including faculty time, travel, tuition waivers, teaching assistant stipends, and office operations) totaling more than \$1,200,000 have been contributed by Oregon State University and the Affiliates of Oregon Space Grant.



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Oregon Space Grant Affiliate Members

Eastern Oregon University La Grande

Evergreen Aviation Museum

McMinnville

Friends of Pine Mountain

Observatory

Bend

George Fox University

Newberg.

Hatfield Marine Science Center

Vewport

Lane Community College

Eugene

Linfield College

McMinnville

Oregon Institute of Technology

Klamath Falls

Oregon Museum of Science &

Technology

Portland

Oregon State University

Corvallis

Portland Community College

Cascade Campus

Portland Community College

Rock Creek Campus

Portland Community College

Sylvania Campus

Portland State University

Portland

ScienceWorks Hands-On Museun

Ashland

Southern Oregon University

Ashland

he Museum at Warm Springs

Warm Springs

University of Oregon

-ugene

Western Oregon University

Monmouth

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Space Grant Consortium

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► Oregon Space Grant Program Elements

Graduate Fellowships:

In an effort to attract excellent graduate students to aerospace related research programs at Oregon Space Grant affiliated higher education institutions, graduate fellowships are offered to incoming, first-year graduate students. The fellowships support the Research Infrastructure at Oregon Space Grant affiliates by allowing researchers the flexibility to approach new areas of research and enhance the financial support for outstanding graduate students. Four or five fellowships, currently valued at \$6,000 per year for three years, are offered each year.

Undergraduate Scholarships

Ten to twenty \$1,000 merit-based scholarships are awarded annually to students in science, technology, engineering and mathematics (STEM) disciplines at any of the Oregon Space Grant affiliate institutions.

LaunchOregon - Balloon Satellite Program

Increases student exposure to design requirements of space hardware and provides the opportunity for students to experience hands-on science, math and engineering activities. Practical team-building skills are developed as students prepare for the next generation workforce in aerospace, science, engineering and technology. OSGC provides funding to balloon sat programs from it's affiliate member institutions. To date, GFU, OIT, OSU, PSU, SOU, UO and WOU have active teams or are developing programs.

Reduced Gravity Student Flight Opportunities Program:

A two-semester program involving teams of undergraduate students who collectively build experiments and fly them in Houston at Johnson Space Center on NASA's microgravity aircraft to study the effects of zero-gravity.

NASA Student Internships:

Students from OSGC affiliate institutions may apply for competitive student research internship opportunities working with NASA scientists at select NASA centers, including the following programs: Goddard Space Center Robotics Internship, NASA Academy, Jet Propulsion Laboratory Space Grant Summer Internships, Johnson Space Center Summer Internships, and the Undergraduate Student Research Program.

NASA Explorer School (NES):

Pooling resources with NASA personnel and statewide educational partners develop an action plan that addresses local needs in mathematics, science, and technology, and incorporates NASA data and materials into the curriculum. Throughout a three-year partnership, educator teams consisting of four educators and an administrator, implement their action plans, participate in professional development, and involve students and families to increase student interest and knowledge about careers in science, mathematics, and technology ultimately inspiring the next generation of explorers. There are currently two NASA Explorer Schools in Oregon: Faulconer-Chapman in Sheridan, OR and Vernon Elementary School in Portland, OR.

Saturday Academy Apprenticeships in Science and Engineering (ASE):

ASE program provides high school students with exceptional opportunities in a professional, scientific or engineering environment, helping them explore interests and make informed educational and career decisions. The program places high school students in an apprentice-mentor relationship with scientists and engineers in industry. OSGC supports the teacher mentors from around the state.

The Science and Math Investigative Learning Experiences (SMILE) Program

Strives to increase the number of educationally underserved students who graduate from high school and then qualify to go to college and pursue careers related to science, math, engineering, health professions, and teaching. SMILE functions as a pipeline; students can apply in the 4th grade and continue through the 12th grade, finally going to college. SMILE believes in learning by doing, and provides a yearlong schedule of activity-based science and math experiences while emphasizing teamwork and collaboration. SMILE also provides workshops for the teachers who lead the SMILE program in their communities.

For more information about OSGC Programs and applicable deadlines Visit the Oregon Space Grant website at: http://spacegrant.oregonstate.edu